Drysuit Owner's Manual

INCLUDING

ZipSeals™ by DUI

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DUI Drysuit Owner's Manual

Congratulations on purchasing a DUI drysuit. It has been carefully manufactured to exacting standards using high quality materials. When used properly, it will make your diving more comfortable and enjoyable.

DUI's drysuits are intended for use by certified divers trained in the use of drysuits, or individuals under the direct supervision of a qualified instructor.

Even if you are an experienced drysuit diver, we urge you to take the time to read this manual. It includes many important safety techniques and information that can help you extend the useful life of your drysuit.

If the owner's manual is unavailable or lost, a copy may be obtained by contacting DUI at 619-236-1203 or toll free at 800-325-8439 or CustomerService@DUI-Online.com or a copy may be downloaded from the website at www.DUI-Online.com.

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1148 Delevan Dr., San Diego, CA 92102-2499
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Manual Part# 550414

International Distributors:

Please visit www.DUI-Online.com for DUI's complete listing of Authorized International Distributors.

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DEFINITION OF IMPORTANT WORDS USED IN THIS MANUAL

Throughout this manual, we will use certain words to call your attention to conditions, practices, or techniques that may directly affect your safety. Pay particular attention to information introduced by the following signal words:

!!! DANGER !!!

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

!! WARNING !!

Indicates a potentially hazardous situation, which if not avoided, could result in death or serious injury.

! CAUTION !

Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

TECHNICAL SUPPORT

If any portion of this manual is unclear, or if you are unable to obtain satisfactory answers from your dive store or instructor, contact DUI at:
800-325-8439
619-236-1203
Fax 619-237-0378
CustomerService@DUI-Online.com
www.DUI-Online.com

IMPORTANT SAFETY INFORMATION

This drysuit is intended for use by certified SCUBA divers who have successfully completed a course in the use of drysuits or divers in training under the supervision of a qualified instructor.

!! WARNING !!

Follow all instructions and heed these safety precautions. Improper use or misuse of the drysuit could result in serious injury or death.

!! WARNING !!

This owner's manual is NOT a substitute for drysuit instruction by a qualified instructor. DO NOT USE a drysuit until you have practiced and mastered practical drysuit diving skills, including emergency skills, in a controlled environment under the supervision of a dive instructor, certified by a nationally recognized instructional organization and knowledgeable in the use of drysuits.

!! WARNING !!

Improper use or misuse of this DRYSUIT could result in loss of buoyancy control, including uncontrolled descents and uncontrolled rapid ascents, resulting in drowning, decompression sickness, or air embolism.

!! WARNING !!

Improper use or misuse of this DRYSUIT could result in exposure to thermal hazards, including rapid body overheating or cooling, resulting in stroke or seizure.

!! WARNING !!

Do not use the drysuit as a lift bag. If you use the drysuit as a lift bag and lose your grip on the object, you may become excessively buoyant. This may result in a rapid ascent.

!! WARNING !!

Rapid ascent is dangerous and may cause air embolism or decompression sickness, either of which can result in serious injury or death.

!!! DANGER !!!

Diving in an environment which is chemically, biologically, or radiologically contaminated is extremely hazardous. Although some DUI equipment can be adapted for use in some contaminated environments, special training, equipment and procedures are required. Do not dive in a contaminated environment unless you have been thoroughly trained and specially equipped.

!!! DANGER !!!

Ice diving (diving in water 40°F (4.4°C) or less) is extremely hazardous. Do not engage in ice diving unless you have been thoroughly trained and specially equipped.

Read this entire manual before using the drysuit, even if you have experience in the use of drysuits. Keep the manual for future reference.

If you resell or loan the equipment to someone, be sure that this manual accompanies the drysuit and is read and understood before the drysuit is used.

Failure to follow all warnings and instructions for use and maintenance of the drysuit may result in serious injury or, in extreme situations, death.

This manual is supplied to the original purchaser of a DUI drysuit. If you have any questions about the use or maintenance of your DUI drysuit, or if you need another copy of this manual, contact DUI:

Diving Unlimited International, Inc.
1148 Delevan Drive, San Diego, CA 92102-2499 USA
1-800-325-8439
CustomerService@DUI-Online.com
www.DUI-Online.com

IMPORTANT SAFETY PRECAUTIONS DRYSUIT GUIDELINES

The following DRYSUIT GUIDELINES have been adopted and endorsed by several manufacturers of drysuits, including DUI.

- Complete a drysuit diving course from an instructor and stay current by practicing your skills often.
- Use a buoyancy compensation device for surface flotation and back up.
- Know your equipment and emergency procedures.
- Practice your drysuit diving skills under controlled conditions until they become second nature.
- Dive with a dive partner who understands your drysuit system.
- Use the correct amount of insulation for the water temperature you're diving in and your exercise rate.
- Don't weight yourself heavier than neutral buoyancy with an empty tank. Your weighting should allow you to make a safety stop at ten feet upon completion of your dive with a tank containing 500 psi (34 Bar) of air or less.
- Check your valves, zipper and seals before each dive.
- Perform preventive maintenance and repairs on your drysuit and valves regularly, or have them serviced by a qualified individual.
- Know your limitations and do not exceed them.
- Water or air temperatures below 70°F (21°C) constitute cold water diving.
- Water or air temperatures below 40°F (4.4°C) constitute ice diving. Ice diving is very dangerous and requires special equipment, training, preparation and procedures.

INTENDED USE AND FUNCTION OF A DRYSUIT

DUI drysuits are shell drysuits and provide minimal thermal protection. The drysuits are designed to be used in combination with insulated undergarments as well as head and hand protection. The shell drysuit provides a dry air layer around the covered portions of the body. A similar example is a raincoat. As with a raincoat, the coat keeps you dry and what you wear under it keeps you warm. This approach provides you with a versatile drysuit which can be used in a wide range of diving conditions by adjusting the insulation and accessories to your personal needs.

!!! DANGER !!!

Diving in an environment which is chemically, biologically, or radiologically contaminated is extremely hazardous. DUI offers a line of drysuits specifically for these types of diving operations. However, even with these specialized drysuits, special training, equipment and procedures are required.

SELECTING AND FITTING A DRYSUIT

DUI builds and inventories several different sizes of drysuits which fit a large percentage of the population. Special production sizes are available for those individuals who do not fit in an inventoried size.

When selecting the size of a drysuit start with the sizing tables for the drysuit style. The size given will represent a starting point. The key to getting the correct size is to first put on the maximum amount of insulation/divewear you anticipate using. See DUI's Thermal Guidelines for help in making your divewear choices.

FIG-1 Men's and women's drysuit size tables, stocked sizes

CF200X

Inches	**S**		**M**		**LS**		**L**		**XL-S**		**XL**	
Height	60	68	62	70	62	70	64	72	54	72	66	74
Chest	34	37	38	40	41	43	41	43	44	46	44	46
Girth	64	68	68	72	68	72	70	74	70	74	72	76
Floor-Crot	32	34	33	35	33	35	34	36	34	36	35	37

CF200X

mm	S		M		LS		L		XL-S		XL	
Height	1524	1727	1575	1778	1575	1778	1626	1829	1372	1829	1676	1880
Chest	864	940	965	1016	1041	1092	1041	1092	1118	1168	1118	1168
Girth	1626	1727	1727	1829	1727	1829	1778	1880	1778	1880	1829	1930
Floor-Crot	813	864	838	889	838	889	864	914	864	914	889	940

CLX, FLX, TLS, CNSE and CF200SE

Inches	S		M		L		XL		XX	
Height	60	68	62	70	64	72	66	74	68	76
Chest	34	37	38	40	41	43	44	46	47	49
Girth	64	68	68	72	70	74	72	76	74	78
Floor-Crot	32	34	33	35	34	36	35	37	35	37

CLX, FLX, TLS, CNSE and CF200SE

mm	S		M		L		XL		XX	
Height	1524	1727	1575	1778	1626	1829	1676	1880	1727	1930
Chest	864	939	965	1016	1041	1092	1118	1168	1194	1245
Girth	1626	1727	1727	1829	1778	1880	1829	1930	1880	1981
Floor-Crot	813	864	838	889	864	914	889	940	889	940

Womens CLX, FLX, TLS,

Inches	S		M		ML		L		XL		XX	
Height	60	66	62	68	64	70	64	70	65	70	66	72
Chest	30	33	32	34	35	37	35	38	39	41	71	43
Girth	61	63	63	65	65	67	65	67	67	69	71	73
Floor-Crot	31	33	32	34	32	34	33	35	34	36	35	37

Womens CLX, FLX, TLS,

mm	S		M		ML		L		XL		XX	
Height	1524	1676	1575	1727	1626	1778	1626	1778	1651	1778	1676	1829
Chest	762	838	813	864	889	940	889	965	991	1041	1803	1092
Girth	1549	1600	1600	1651	1651	1702	1651	1702	1702	1753	1803	1854
Floor-Crot	787	838	813	864	813	864	838	889	864	914	889	940

Before putting on a drysuit:

- Check the fit of the divewear. Ill-fitting divewear insulation can affect the fit of the drysuit.
- Check the fit of the seals - see the seal sizing portion of this manual
- Review the instructions in this manual on how to put on the drysuit

Put the drysuit on over your divewear and complete the following fit evaluation:

The drysuit should not restrict breathing

Feet should not be cramped

Complete the range of motion exercises:

Ease of breathing: There should be no restriction when taking a deep breath.

Overhead reach: Reach up with both hands as if you were trying to reach the valve on your tank; you should be able to do this without the drysuit pulling up tight in the crotch.

Cross your arms reach: Reach across the chest with both arms (like you were hugging yourself.) You must be able to reach and operate the exhaust valve on the left shoulder.

Crouch and reach: Kneel down, sit back over your heals and lean forward. This position checks the leg length and torso length at the same time. The drysuit should not be restrictive or binding.

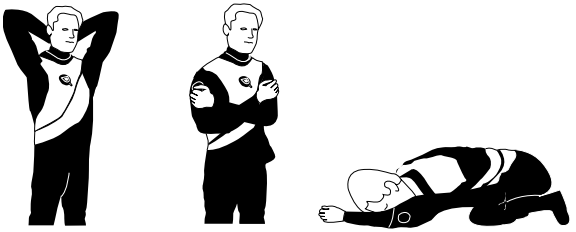


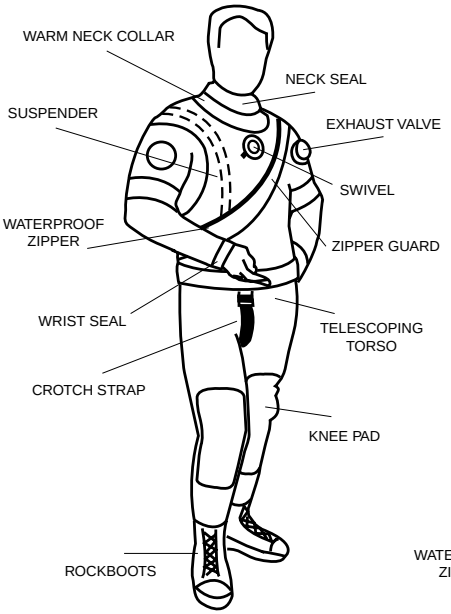
FIG-2 Range of motions exercises

The fit of a drysuit is important and, if you are between sizes, the larger size is the better choice. If problems are noted in any of these areas a different stock size or a Special Production (made-to-order) should be selected.

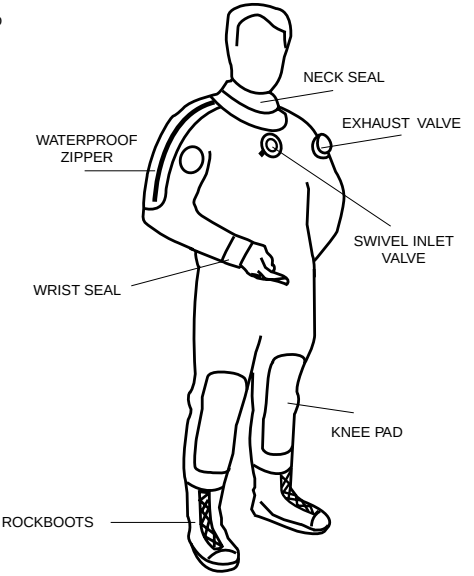
Common DUI Drysuit Features

The following features are found both on QuickZip™ self-donning drysuit models and shoulder-entry drysuit models.

FIG 3 & 4 Drysuit Features



QUICKZIP / SELF DONNING
FIG - 3



SHOULDER ENTRY
FIG - 4

Drysuit Valves

Your drysuit is equipped with an inlet and exhaust valve for controlling the air volume inside your drysuit. The inlet valve allows you to put air into your drysuit during descent as needed or to inflate the drysuit while at the surface for additional flotation. The inlet valve body swivels and allows the drysuit inflation hose to be routed around the right or left side of the diver.

The exhaust valve is used to vent unnecessary air from the drysuit. The exhaust valve can be used to release air automatically or can be manually operated. Most diving is done with the exhaust valve in the automatic mode at the lowest opening pressure which keeps the smallest amount of air in the drysuit. Set the valve to the lowest opening pressure by rotating the valve body completely counterclockwise until you reach a stop (see the section on MAINTAINING BUOYANCY CONTROL DURING THE DIVE for more information.) To vent air from the drysuit in the automatic mode make the valve the highest point in the drysuit. Example: lift your left elbow up so that the valve is at the highest point on your arm.

The manual exhaust mode is used primarily on the surface when additional flotation is needed. In the manual mode, the valve is set at the highest opening pressure by rotating the exhaust valve body fully clockwise until a stop is reached. To vent air from the drysuit, position the valve at the highest point and fully press down on the valve. The valve can be manually operated to vent air from the drysuit even in the automatic or partially closed mode.

Neck & Wrist Seals

The neck and wrist seals provide a watertight seal around the neck and wrist. Sizing adjustments must be made to get a proper fit and seal. Latex seals are most common, however neoprene seals are available.

Socks & RockBoots™

Each drysuit is provided with dry socks attached to the drysuit to keep the feet dry. The socks are sized to provide room for insulated accessory boots. RockBoots™ are then worn over the socks to provide protection, ankle support and improved traction.

Waterproof Zipper

The waterproof zipper provides a watertight closure and allows for putting

the drysuit on and removing it. The waterproof zipper is one of the most important parts of your drysuit. Read the instructions on the use and care of the waterproof zipper before using. Misuse could result in permanently damaging the zipper.

Common features on QuickZip™/ self-donning drysuits

Suspenders

Suspenders hold the crotch of the drysuit up which improves leg movement. The suspenders also allow the upper half of the drysuit to be worn down around the waist before or between dives.

Telescoping Torso

The telescoping torso section provides extra room for putting the drysuit on or removing it. The extra material then folds over at the hips when the extra length is not needed.

Crotch Strap

The crotch strap holds the telescoping torso section in place when the drysuit is in use.

Warm Neck Collar

The warm neck collar is used in combination with the warm neck hood. The bib on the warm neck hood is tucked under the warm neck collar. The design minimizes water circulation around the neck and helps to keep the neck warm.

Zipper Guard

The zipper guard provides a protective covering for the waterproof zipper.

ACCESSORIES FOR DRYSUIT DIVING

There are several accessories that will make diving with your DUI drysuit easier and more enjoyable.

The following drysuit accessories are available from your DUI dealer. For additional information contact your DUI dealer, visit DUI's website at www.DUI-Online.com or contact DUI Customer Service.

Divewear (Insulation)

DUI has a complete line of insulation garments specifically designed for the diving environment. See DUI Thermal Guidelines for help in selecting the best combination of garments for your diving needs.

Hoods

Warm Neck Hood: The warm neck hood provides additional thermal protection to the neck area and is designed work in conjunction with the warm neck collar available on most DUI drysuits.

Standard Hood: This hood is used with drysuits not equipped with warm neck collars.

Weight & Trim System

DUI produces two styles of Weight & Trim Systems that have a 40 lb (18 kg) capacity, an easy to adjust harness and patented weight drop system.

Weight & Trim Classic: Heavy webbing harness, maximum size range adjustability, weight pockets adjust forward and back, up and down

Weight & Trim II: The harness is made of 1000 Denier Cordura® and is more streamlined, weight pockets adjust only forward and back

Necklace

The necklace is used before or between dives for topside comfort. Folding the neck seal over the necklace relieves the seal tension around the neck and also allows moisture in the drysuit to be vented. Remember to remove the necklace before entering the water.

Dry Glove Systems

Dry glove systems should be considered when diving in water temperatures below 54°F (12°C) to minimize the risk of non-freezing cold injures. Current options include:

SI-5 Integrated Glove System: A ring is permanently attached to your drysuit and the glove attaches to your drysuit with that ring. No wrist seal is used and liners are used on your hands for insulation.

Dry-5 Non-Integrated Glove System: Insulated dry gloves with latex wrist seals attached and worn over the top of the drysuit wrist seals.

Other Accessories

Ankle Weights

Many newcomers to drysuit diving find that ankle weights are helpful in adjusting trim while in the water. Experienced drysuit divers often consider ankle weights as "training wheels" to be removed as soon as possible because of the additional effort required to swim. It is recommended that recreational divers wear no more than 2.5 Lb (1 kg) on each ankle.

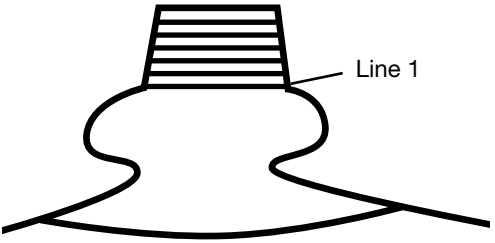
! CAUTION !

Do not wear fins that are too tight. If you block the blood flow to the feet, you may suffer cold and disabling foot cramps.

LATEX SEALS

Fig-5

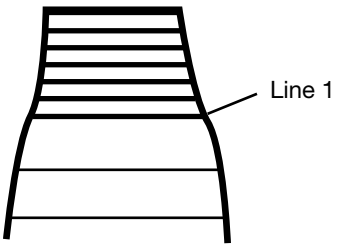
Trim Line	Neck (in)	Neck (mm)
Trim Line 11	11 1/8	283
Trim Line 10	11 3/4	298
Trim Line 9	12 3/8	314
Trim Line 8	13	330
Trim Line 7	13 7/8	352
Trim Line 6	14 1/2	368
Trim Line 5	15	381
Trim Line 4	15 5/8	397
Trim Line 3	16 1/8	410
Trim Line 2	17	432
Trim Line 1	18	457



Note: *If your latex seals are not new with 11 trimlines on the neck and 10 trimlines on the wrist contact customer service at DUI for assistance.*

Fig-6

Trim Line	Wrist (in)	Wrist (mm)
Trim Line 10	4 1/2	114
Trim Line 9	5	127
Trim Line 8	5 3/8	137
Trim Line 7	5 7/8	149
Trim Line 6	6 3/8	162
Trim Line 5	6 7/8	175
Trim Line 4	7 3/8	187
Trim LIne 3	7 7/8	200
Trim Line 2	8 5/8	219
Trim Line 1	8 7/8	225



Latex neck and wrist seals are trimmed to fit to provide a comfortable water-tight seal. Latex seals are tapered and have a series of trim lines (small raised lines running around the outside surface of the seal.) The trim lines start at the seal opening and each line gets progressively bigger. These lines can be used as a guide when trimming the seals to keep the line even. A good pair of scissors is needed to make smooth cuts. Use the Seal Sizing Table to determine the best starting point for you.

Start by measuring the circumference of your neck and wrists and compare these measurements to the Seal Sizing Table. This will establish a starting point. If your wrists are different sizes you can trim each seal to match each wrist.

Try on the seal (it isn't necessary to put the entire drysuit on to try the neck

seal.) For the neck seal, position the seal as low on your neck as possible. It should be snug, but not tight. If you are new to drysuit diving, a snug neck seal may feel a bit uncomfortable out of the water. Once in the water, a properly trimmed neck seal is comfortable.

Wrist seals should be worn just above the wrist bone. They should be snug but not tight and should not restrict blood flow to the hands. If you experience tingling hands trim seals further.

If this is the first time you have trimmed seals and you are concerned about over trimming the seals, start by moving down one size than shown on the Seal Sizing Table. If the table recommends trimming at line 5, start by trimming at line 6 and check the fit. If the seal is overly snug you may want make an additional trim between lines 5 and 6. Trim in small steps and it is difficult to over-trim.

NEOPRENE SEALS

Neoprene seals are made from the same material used to make wetsuits. The seal material is normally 1/8"-3/16" (3-5 mm) in thickness. Though neoprene neck and wrist seals are provided in different sizes, size adjustment may still be needed (keep in mind that a neoprene seal will stretch and become slightly larger with use.) If your seals are too tight, you can stretch them yourself by pulling the seal over something a little larger then your neck or wrist. For a neck seal, a SCUBA tank is common and for wrist seals, a bottle or can is often used. Once the seal(s) are stretched over the item, leave them for about twelve hours. If they are still too tight after this they may need to be trimmed.

To trim the seal use a good pair of scissors and trim off only 1/8" (3 mm) of length at a time checking the fit between cuts. As with latex seals the neoprene seal should not be overly tight or restrict blood flow.

!! WARNING !!

A neck seal that is too tight can restrict the blood flow to your brain, resulting in serious injury or death.

!! WARNING !!

A wrist seal that is too tight can restrict the blood flow to the hand resulting in discomfort, loss of sensation and predispose the hands to cold injuries.

Note: Remove all jewelry which can damage or get caught in the seals.

WRIST SEALS

Latex

- To prevent the Divewear from bunching up in the drysuit sleeve, place the thumb loops located inside the divewear sleeve openings over the thumb or grasp the cuff of the garment with the finger tips
- Pull on the sleeve to where your fingers are sticking out of the seal by 1" - 2"
- Bring the fingertips of the hand together forming a point
- With two fingers from the other hand stretch the seal sideways and pass the hand through the seal
- The latex seal should lay flat against the skin and there should be no wrinkles in the sealing surface. Make sure the thumb loops and/or divewear material is not under the sealing surface

Lubricating seals: This is a matter of preference. Common lubricants include talc, soapy water and Liquid KY. Do not use silicone lubricants which can build up on the suit resulting in problems when repairs are needed.

Special Tip: Soapy water is an excellent lubricant for putting the wrist seals on and off. Use one part dishwashing soap to ten parts water and put in a spray bottle. Spray a small amount of the soapy water on the inside and outside of the wrist seal before putting your hand inside the sleeve.

Neoprene Cone (Smooth Sealing Surface inside seal)

- Put on using the same method as the latex wrist seals
- Neoprene Fold Under Cone (Smooth Sealing Surface on outside of seal to be folded under to create a seal)
- Put on using the same method as the latex wrist seals
- Fold under a minimum of 1" (25 mm) of the seal opening so that the smooth sealing surface is against your skin

NECK SEALS

Latex

- Place the drysuit on top of your head
- From the outside of the suit, grasp the neck seal by placing both hands on the inside of the neck opening
- Stretch the seal wide with your hands flat (do not dig your fingernails into the neck seal.) Your thumbs should remain on the outside of the seal
- Spread the neck seal as wide as you can, turn your head to the side and pull the neck seal over your head
- The seal should lay flat against your skin. There should be no wrinkles or folds or any items under the seal, i.e. divewear collar

Neoprene

- Place the drysuit on top of your head
- From the outside of the suit, place your hands flat on the outer surface of the seal
- Push your head up through the neck seal while using your hands to slide the neck seal over your head. Stop when the top edge of the neck seal reaches your chin
- To make a seal fold the top edge of the neck seal under while the seal is still at your chin. Fold the top edge of the seal down and in around the neck. Approximately 2" of the smooth surface of the seal should be flat against the neck
- The seal should lay flat against your skin. There should be no wrinkles or folds or any items under the seal, i.e. divewear collar

WRIST SEALS

Latex

- Insert the index and middle fingers of the left hand under the right wrist seal. Slide the fingers along the inside of the wrist, keeping your fingernails against the wrist and away from the seal
- Grasp the sleeve material between your fingers and thumb and pull your arm out of the seal but not out of the sleeve. Slide the drysuit off the right shoulder.
- Put your right arm around your back and, with your left hand, grasp the material of the right sleeve. Pull the sleeve off your right shoulder and arm. Remove your left wrist seal in the same way and pull the left arm free of the sleeve

Neoprene Cone (Smooth Sealing Surface Inside Seal)

- Pull the sleeve up as far as you can on your arm
- Pull the sleeve down to invert the seal so the nylon lays flat against your forearm
- Insert the fingers of your opposite hand, grasp the sleeve where the wrists seal meets the sleeve and pull seal and sleeve off

Neoprene Fold Under Cone (Smooth Sealing Surface on Outside of Seal)

- Unfold the end of the seal so that it is no longer turned under (nylon is laying against your skin)
- Insert the fingers of your opposite hand and pull the seal down and over your hand

NECK SEALS

Latex

- From the outside of the suit, reach through the top of the neck seal with both hands
- Spread the latex neck seal as wide as you can with your hands flat (do not dig your fingernails into the neck seal)
- While spreading the neck seal, lift with your arms as you tuck your head to your chest. Put your head under the seal and out of the drysuit
- Should you require assistance, have your dive partner put his/her hand inside the zipper opening under the inlet valve. Gently lift the front of the drysuit until it is over your head. Do not strain the drysuit zipper.

Neoprene Neck Seal

- Unroll the neck seal so it is no longer turned under (nylon is laying against your skin)
- Grab the neck seal with your hands on either side of your head and pull it up until the leading edge is at chin level
- Slide your fingers down inside the seal until the edge of the seal and grab with your fingers and thumb. Tuck your chin into your chest and, while turning your head slightly to the side, pull up on the seal

Using & Installing DUI ZipSeals™ & Zip Gloves™

!! WARNING !!

Improper use or misuse of ZipSeals™ and/or ZipGloves™ could result in suit flooding and loss of buoyancy control, including uncontrolled descents and uncontrolled rapid ascents, resulting in drowning, decompression sickness, or air embolism. Always check ZipSeals™ attachment prior to every dive.

Improper use or misuse of ZipSeals™ and/or ZipGloves™ could result in suit flooding and exposure to thermal hazards, including rapid body cooling and hypothermia. Always check ZipSeals™ attachment prior to every dive.

Installing ZipSeals™ - Wrist

- Apply a small amount of soapy water into the grooves on the wrist ZipSeal™
- Apply a small amount of soapy water into the groves on the drysuit sleeve ZipSeal™
- Press down on the drysuit sleeve, making the ZipSeal™ ring on the drysuit into an elliptical shape
- Insert the wrist ZipSeal™ inside the ZipSeal™ ring on the drysuit sleeve
- Line up the grooves on the wrist ZipSeal™ with the grooves on the drysuit sleeve ZipSeal™. The grooves on the wrist ZipSeal™ must fit within the grooves on the drysuit sleeve ZipSeal™, Fig. 1.

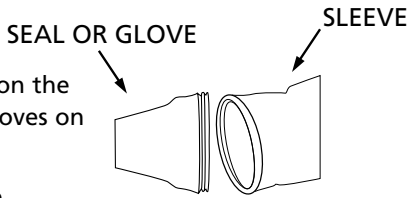


Figure 1

- Press the grooves on the drysuit sleeve ZipSeal™ into the grooves on the wrist ZipSeal™ with your finger tips until you feel the grooves “click” together.

- Continue pressing the grooves together all around the ring. If you have difficulty pressing the last section together, apply a little more soapy water into the grooves, Fig. 2.

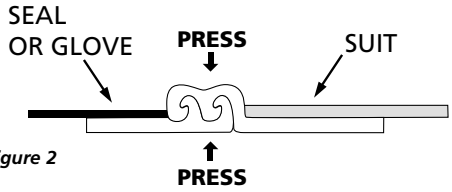


Figure 2

- Repeat the procedure on the other sleeve
- *Double check* each ZipSeal™ before every dive to make sure that the grooves are securely snapped together.

Installing ZipSeals™ - Necl

- Turn the drysuit inside out
- Apply a small amount of soapy water into the grooves on the neck ZipSeal™
- Apply a small amount of soapy water into the grooves on the drysuit neck ZipSeal™
- Pull the double ring on the suit slightly apart
- Slide the neck ZipSeal™ ring into the open space on the drysuit neck ZipSeal™. It will be a tight fit, Fig. 3.

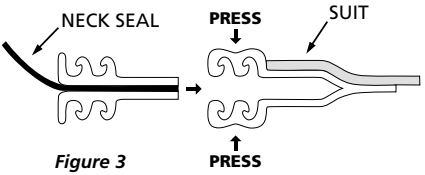


Figure 3

- Line up the grooves on the drysuit ZipSeal™ with the grooves on the neck ZipSeal™
- Press the grooves on the drysuit neck ZipSeal™ into the grooves on the neck ZipSeal™ with your finger tips until you feel the grooves "click" together. Remember: there are two sides of the drysuit neck ZipSeal™ and both grooves need to be locked in place, Fig. 4.

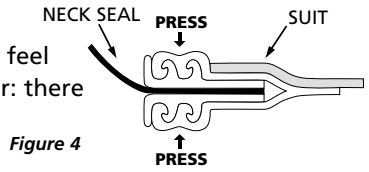


Figure 4

- *Double check* to make sure both sides of the seal and both grooves are locked in place
- Turn the drysuit right side out before diving

Removing ZipSeals™ - Wrist

- Bend the rings into an elliptical shape
- Push down on the ring attached to the wrist ZipSeal™ near the point where the two rings are joined. This should separate the ring in that area.
- Remove the rest of the wrist ZipSeal™ from the drysuit

Removing ZipSeals™ - Neck

- Taking the neck seal ring off of the suit can be difficult as it is locked between two rings. Insert your fingernail between the ZipSeal™ ring on the seal and ZipSeal™ ring on the drysuit. Slide your finger between and then around the ring on the neck seal to separate the rings.
- After completely loosening one side, turn it over to remove the other side.

Installing ZipGloves™

- Remove the ZipSeals™ from the suit sleeves if they are not already removed.
- Apply a small amount of soapy water into the grooves on the ZipGlove™
- Apply a small amount of soapy water into the grooves on the drysuit sleeve ZipSeal™
- Line up the palm of the ZipGlove™ with the seam of the arm of the drysuit (the underside of the arm)
- Line up the ZipGlove™ ring with the ZipSeal™ ring on the drysuit sleeve, Fig. 1.
- Press down on the drysuit sleeve making the ZipSeal™ring on the suit into an elliptical shape
- Insert the ZipGlove™ into the drysuit sleeve

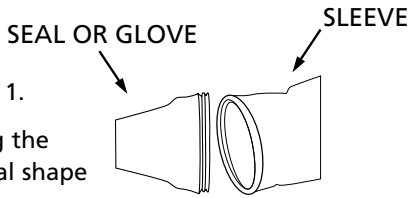


Figure 1

- Press the grooves on the ZipGlove™ seal into the grooves on the drysuit sleeve ZipSeal™ with your finger tips until you feel the grooves "click" together.

- Continue pressing the grooves together all around the ring. If you have difficulty pressing the last section together, apply a little more soapy water into the groovess, Fig. 2.

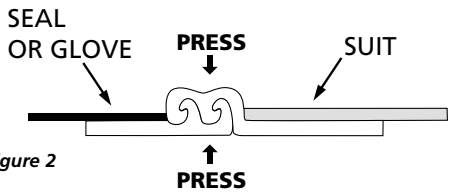


Figure 2

- Repeat the procedure on the other sleeve
- *Double check* each ZipGlove™ before every dive to make sure that the grooves are securely snapped together

Diving With ZipGloves™

After putting on the drysuit and gloves, secure the wrist strap on the gloves. Do not over tighten the wrist strap as this could restrict blood flow to the hands.

Removing ZipGloves™ from wrists

- Bend the rings into an elliptical shape
- Push down on the ring attached to the ZipGlove™ near the point where the two rings are joined. This should separate the ring in that area.
- Remove the rest of the ZipGlove™ from the drysuit

!! Warning !!

Before diving, always make sure the rings are locked in place or leakage will occur.

CONNECTING THE DRYSUIT INFLATOR HOSE TO YOUR REGULATOR

The drysuit comes with an accessory low-pressure (LP) hose to provide low-pressure air to the drysuit inlet valve. The hose needs to be installed by your DUI dealer in one of your regulator's LP 3/8" (9.5 mm) ports. The swivel inlet valve allows the hose to be routed under the right or left arm.

Notes to Installer:

!! WARNING !!

Never connect the low-pressure inflator hose to a high-pressure port on your regulator. If the hose is connected to a high-pressure port, it may fail without warning causing severe personal injury.

Regulator first stages have LP ports which are 3/8" (9.5mm) and are smaller than the high-pressure (HP) port(s) which are 7/16" (11 mm.) However, care must be taken with older regulators where the HP and LP ports are all 3/8" (9.5mm). In most cases, HP ports are marked HP. However, if the output pressure of the port is in question it should be checked. The maximum output pressure of a LP port should be 200psi (13.8 bar.) Once an LP port has been located and the plug removed, check that the O-ring is present and in good condition on the hose. Also check the hose fitting to ensure the threads and O-ring are free from dirt or debris. Install the threaded end of the hose into the port using a 9/16" (14 mm) wrench. Do not over tighten. The fitting should be tightened to 3.3 ft-lb (14.7 N.)

!! WARNING !!

Do not substitute a short hose for the DUI hose supplied with your drysuit. If the hose is bent, kinked or restricted when worn, the inflator valve of the drysuit may not operate correctly.

BEFORE YOUR FIRST DRYSUIT DIVE

Before using your drysuit for the first time:

- Complete a drysuit diving training course
- Completely read the manual and become familiar with diving and emergency procedures
- Complete the fit check
- Adjust the neck and wrist seals to insure proper fit
- Select the correct insulation/divewear and accessories for the planned dive
- Have the drysuit inflation hose connected to your regulator
- Check for proper fitting of all other equipment such as fins, weight system, BCD, etc.

PREPARING TO DIVE WITH YOUR DUI DRYSUIT

PRE-DIVE INSPECTION OF YOUR DUI DRYSUIT

Inspect the seals on your drysuit before diving. If a seal is cracked, sticky or worn, replace it before diving.

Check your drysuit zipper before diving. If you cannot close the zipper with two fingers, lubricate it with DUI ZIPWAX or ZIPPEREASE. To do this, close the zipper and lubricate the outside of the zipper only. Inspect the zipper for damaged teeth, or teeth out of alignment. These signs indicate a damaged zipper. If such signs are evident take your drysuit to the nearest DUI dealer for inspection and repair.

! CAUTION !

Do not use silicone spray on your zipper. A build up of silicone can make your drysuit difficult to repair.

If your drysuit has been in storage for over a month, perform the above inspections well before your scheduled dive. Allow sufficient time to obtain necessary materials and repairs. Before each dive, check the inflator valve and the exhaust valve. The inflator valve should be tested by hooking up your regulator to a full air cylinder and pressing the inflate button. The

inflator valve should be lubricated by spraying a small amount of silicone spray into the valve stem. Use a spray can with a plastic applicator tube so that you can get the silicone directly into the small holes on the inflator valve inflator stem.

To check the exhaust valve, tie off the wrist and neck seals with rubber bands and inflate the drysuit until air exhausts through the exhaust valve. Grasp the exhaust valve; press it to check the manual override function.

PUTTING YOUR DRYSUIT ON

Note: If the weather is warm, set up all of your other equipment before putting on your divewear and drysuit.

- Remove all jewelry that can damage or get caught in the drysuit or seals
- Review Putting the Drysuit Seals On. The fit of wrist and neck seals should have been checked and seals trimmed if needed

Note: Make sure the zipper guard and waterproof zipper is completely open when putting on your taking off the drysuit.

QuickZip™ Design

FIG-7 Steps for putting on your drysuit

1. Open up the zipper guard and the waterproof zipper completely

2. Open up the drysuit by folding it at the waist exposing the suspenders. The suspenders should be completely exposed and laying outside the fold.
3. Make sure the crossover in the suspenders is in the back of the drysuit. Pick up the drysuit as if it is pair of pants
4. Step into the lower half of the drysuit just like a pair of pants. If footing is not stable such as on a rocking boat it is best to sit down to start the process.
5. Pull the drysuit completely up around the waist. Be sure to pull the suit up by the material and not the suspenders. Pull the suspenders up over the shoulders. Adjust the suspenders length with the slide on the two front straps. The suspenders are to keep the crotch in place and do not need to be tight.
6. Pull the excess drysuit length up under the arms (this will give you the maximum amount of material to pull over your head)
7. Carefully insert your left arm into the left sleeve using the appropriate method of putting the seal on for the type of seal that is on the drysuit. Adjust the seal so that it seals properly
8. Bring the sleeve no higher than the middle of your upper arm
9. Repeat the process with the right arm and adjust the wrist seal
10. Bring the suit up so that it is now on your shoulders
11. Bring the shoulders of the drysuit on top of your head and pull the seal down over the head using the appropriate method of putting the seal on for the type of seal that is on the drysuit
12. Fold the excess drysuit length at the hips and connect the crotch strap
13. With the zipper now laying smoothly around the body check that nothing is sticking out and there are no twists in the zipper
14. Using the left hand grasp the suit in the center of the back at the fold and, with the right hand, grasp the waterproof zipper pull handle and pull it around the side
15. Only a minimal amount of force should be required to close the waterproof zipper. If resistance is high or increases, stop, backup the slider and check the zipper. The zipper track should lay flat with no twist and there should be nothing caught in it. Proceed once the

problem has been corrected. The waterproof zipper is one of the most important parts of the drysuit. Do not force it

16. Pull the waterproof zipper up flush with the stop at the bottom end of the zipper
17. Once the waterproof zipper is closed, grasp the slider on the zipper guard on the left shoulder and pull it down until closed

Original Self-Donning Design

1. Complete steps 1-13 listed on page 29
2. Grasp the waterproof zipper pull on the left shoulder and pull the zipper closed. Do not use force. If resistance is high or increases, stop, backup the slider and check the zipper. The zipper track should lay flat with no twist and there should be nothing caught in it. Proceed once the problem has been corrected. The waterproof zipper is one of the most important parts of the drysuit. Do not force it
3. Pull the waterproof zipper down flush with the stop at the bottom end of the zipper. Note: It is easier to do this if you pull the slider with the right hand and at the same time grasp the closed end of the zipper in the front of the chest with your left hand to provide resistance.
4. Once the waterproof zipper is closed, grasp the slider on the zipper guard on the left shoulder and pull it down closed

Shoulder-Entry Design

Note: The following directions will work on all shoulder-entry DUI drysuits, with or without suspenders

1. Open the waterproof zipper completely, then open up the drysuit by folding it down to the waist.
2 Open up the drysuit by folding it down to the waist exposing the suspenders. The suspenders should be completely exposed and laying outside the fold.
3. Check the boot alignment to determine the front of the drysuit.
4. Step into the lower half of the drysuit like a pair of pants. If footing is not stable such as on a rocking boat it is best to sit down to start the process.

5. Pull the drysuit completely up around the waist. Be sure to pull the suit up by the material and not the suspenders. Pull the suspenders up over the shoulders. Adjust the suspenders length with the slide on the two front straps. The suspenders are to keep the crotch in place and do not need to be tight.
6. Pull the excess drysuit length up under the arms (this will give you the maximum amount of material to pull over your head)
7. Carefully insert your left arm into the left sleeve using the appropriate method of putting the seal on for the type of seal that is on the drysuit. Adjust the seal so that it seals properly
8. Repeat the process with the right arm and adjust the wrist seal
9. Pull the shoulders of the drysuit over your head and put your head through the seal using the appropriate method of putting the seal on for the type of seal that is on the drysuit
10. Have your dive partner close the zipper while holding your arms out straight and to the side
11. Look over your shoulder and check that the zipper pull is pulled up flush with the zipper stop

RockBoots™

Special Note: It is recommended you select the maximum amount of insulation you will require for your coldest diving needs and wear this whenever you dive. This will ensure that your drysuit sock, RockBoots and fins will always fit the same.

To have the DUI RockBoots fit properly, it is important to get the drysuit sock and insulation pushed all the way forward into the toes of the DUI RockBoot. Pressure on the toes from both the drysuit sock and the insulation can result if this is not done correctly. It could be uncomfortable until it works loose. To insure maximum comfort, use the following procedure:

1. After putting on your drysuit, insert your foot (with maximum insulation) into the DUI RockBoot
2. Push your toes as far into the boot as possible. Should you find you are unable to get your foot into the boot completely, simply grab the sole of your boot with your hand and, while pushing the DUI RockBoot on

your foot, pull up on the tab on the heel. By using this method you will be able to get the DUI RockBoot on your foot. Your toes may feel pressure at this point

3. Pull upward on the laces to make it reasonably snug on the foot
4. Lift up your foot and hit the back of the heel against the ground. This pulls the foot out of the DUI drysuit sock and insulation and into the back of the boot. This will alleviate any pressure on the toes
5. Tug on the laces to the preferred tightness and secure them using the cord lock
6. Wrap the excess lace ends around the ankle at the top of the boot. Tuck the Velcro® "pile" flap at the end of the laces under the Velcro® "hook" tab on the back of the boot.

Turbo Sole Boot Option

Turbo soles are a tennis shoe style sole attached to the bottom of a DUI drysuit sock. This is an option provided on some special order drysuits. These hard sole boots are attached to the drysuit and are not used with the RockBoots™. Putting on turbo sole boots:

1. Loosen the Velcro® ankle straps
2. Slip feet into boots when pulling on the drysuit
3. Secure Velcro® ankle straps snugly around ankle

DIVING WITH YOUR DUI DRYSUIT

!! WARNING !!

This owner's manual is NOT a substitute for drysuit instruction by a qualified instructor. DO NOT USE a drysuit until you have practiced and mastered practical drysuit diving skills, including emergency skills, in a controlled environment under the supervision of a dive instructor certified by a nationally recognized instructional organization and knowledgeable in the use of drysuits.

Drysuit diving is an acquired skill that requires specialized training, practice under controlled conditions and adequate exposure time for the diver to adapt to open water diving in a drysuit system.

Complete the fit check and seal sizing before preparing to dive. Practice putting on and taking off the drysuit and seals so it becomes second nature.

PREPARING TO DIVE

- Assemble all diving gear and have it ready to dive
- Put on your drysuit and RockBoots™
- Open drysuit exhaust valve fully by turning counterclockwise
- Vent excess air from drysuit: Place a finger under the neck seal and squat down venting all the air from the drysuit. Remove your finger from under seal and stand up
- Put on the remainder of equipment

ENTERING THE WATER

!! WARNING !!

Do not jump in the water with excess air in the drysuit. The excess air in the drysuit is forced upward in the drysuit when entering the water. This excess can collect around the neck seal or up the sleeves where it has no outlet. Jumping from significant heights with excess air in the drysuit can produce a blow to the chin sufficient to render the diver unconscious.

- Partially inflate your BCD before entering the water
- A giant stride entry is the most common water entry from a boat. When entering the water feet first, the excess air in your drysuit will be forced into the upper parts of the drysuit. Make sure that the exhaust valve is completely open before entering the water

ACHIEVING NEUTRAL BUOYANCY AT THE SURFACE

Diving safely requires a precautionary safety stop at 10-15 feet (3-5 m) before surfacing. Additional weight is needed to allow neutral buoyancy with 500 psi (34 Bar) or less remaining in the cylinder. After achieving neutral buoyancy at the surface with a full tank of air, add an amount of weight equal to the weight of the air in your full cylinder. Use the following procedure to check your buoyancy while using single or double cylinders.

! CAUTION !

Your weight requirements will change from fresh water to salt water.

! CAUTION !

Weight requirements are different for different cylinder sizes and combinations and a buoyancy check should be done with the configuration with which you plan to dive.

! CAUTION !

Your weight requirements will change with changes in the amount of divewear worn under the drysuit.

- To check your weighting, enter controlled water fully dressed in your scuba unit, drysuit and insulation
- Vent all of the air from your drysuit by assuming a vertical position in the water and opening the drysuit exhaust valve completely by turning it counterclockwise until it stops. Lift your left elbow to make the exhaust valve the highest point in the drysuit
- Vent air from your BCD until you become neutrally buoyant with your lungs full of air. When you exhale you will start to descend. When you are neutrally buoyant only the top of your head remains above the surface
- If you are not neutrally buoyant and continue to descend adjust your weight until you are neutral with your BCD fully deflated
- Once you have reached neutral buoyancy with a full tank and your BCD is fully deflated, add additional weight to compensate for a near empty tank. See the table below for the estimated weight to be added

ESTIMATED CHANGES IN CYLINDER WEIGHT

The following table provides an estimate as to the change in the weight of a single cylinder during the course of a dive assuming 80% of the air is consumed. For double cylinders, multiply by two.

FIG-8 Table showing changes in cylinder weight

Volume Air in Cylinder		Approximate Weight Change	
Cu-ft	liters	Weight lbs	Weight kg
40	1452	2.6	1.2
50	1815	3.2	1.5
60	2178	3.8	1.7
72	2614	4.6	2.1
80	2904	5.1	2.3
95	3449	6.1	2.8
100	3630	6.4	2.9
120	4356	7.7	3.5

MAINTAINING BUOYANCY CONTROL DURING THE DIVE

Diving with a drysuit requires both buoyancy and trim control. Both of these require controlling the drysuit's free-air-volume. The free-air-volume is the bubble of air which can freely move around inside the drysuit. This volume of air is not part of the air trapped in the undergarments. The free air volume contributes little or nothing to the overall insulation value. However, this roving bubble is always moving to the highest point of the drysuit as you change your attitude in the water. If the roving bubble is too big, it can lead to trim problems such as the feeling your feet are floating up. The diver can measure the size of this bubble by rotating the body to a vertical position and holding one arm up over the head thus allowing the free air to move up this arm. The drysuit will be collapsed around the arm up to the bottom of the bubble. When the bubble is larger then half the length of the forearm it is getting too big. It is best to keep the bubble small and, if it starts to grow, vent the excess volume off and add air to the BCD to attain neutral buoyancy.

Once on the surface in a vertical posture with your head out of the water, you will notice that there is more pressure on your legs than on your chest. This is normal any time you are in the water and have your head higher than your feet. The drysuit should feel as though it is squeezing you gently all over your body. Though the sensation is quite different than that experienced when wearing a wetsuit, you won't notice it after a few dives or when you are in a horizontal position.

! CAUTION !

Different tank sizes and different tank materials will require different amounts of weight to compensate for the change in buoyancy from a full tank to an empty tank.

DIVING WITH A SINGLE TANK

As the diver consumes air from a single tank during the dive, the diver will become more buoyant. Depending on the size of the cylinder, this weight change can be as much as 5-6 lbs (2-3 kgs) over the course of the dive. To offset this weight change, a volume of the air totaling 4-6 pts (2-3 l) is needed. This volume of air can be placed in the drysuit or BCD or distributed between both. Many divers are able to maintain neutral

buoyancy during the dive by simply adding air to their drysuit. However some prefer to add air to their BCD keeping a smaller free-air-volume bubble in the drysuit for better trim control.

DIVING WITH MORE THAN A SINGLE TANK

Because of the greater weight change during the course of a dive, the diver should keep the free-air-volume bubble in the drysuit to a minimum and do most of the buoyancy compensation with the BCD.

STARTING YOUR DIVE

At the start of your dive, make sure that the exhaust valve is completely open by turning the valve fully counterclockwise. To automatically exhaust any air in the drysuit, lift your left elbow to raise the valve to the highest point of your body. Keep your wrist lower than your elbow. With your mask on, you may not be able to see the valve, but you should be able to hear the air exiting from the valve. Descend by venting all of the air from your BCD.

DESCENDING

Once you drop past ten feet (3 m), you will start to descend faster. Leave the exhaust valve all the way open. Do not close the exhaust valve. Add air to your drysuit in short bursts, a little bit at a time. The short bursts will control the volume of air going into your drysuit and will help keep the valve from freezing open when air or water temperatures are below 40°F (4.4°C). Add just enough air to eliminate any uncomfortable squeeze. If you add too much air, your descent will stop.

To equalize a foot squeeze, you must get air into your boots. Air can only enter the boots if you are parallel to the surface or in a slight feet-up attitude.

!! WARNING !!

Do not close the drysuit exhaust valve all the way while you are underwater. The valve has been designed to vent automatically whenever the valve is at the highest point of your body. Closing the valve increases the amount of air trapped in the drysuit and may lead to a loss of control. Rapid ascent is dangerous and may cause air embolism or decompression sickness, either of which can result in serious injury or death.

OBTAINING NEUTRAL BUOYANCY AT DEPTH

When you reach the desired depth, add just enough air to the drysuit and/or BCD to make yourself neutrally buoyant. Remember to add only small amounts of air. Check the results before adding more. One of the keys to drysuit diving is to dive with the minimum volume of air in your drysuit. Proper weighting is essential to dive with a minimum volume of air in the drysuit.

Use your drysuit and/or BCD to adjust your buoyancy. If you pick up additional weight during your dive (game, salvage items), use a lift bag to raise the additional weight to the surface. A small lift bag can be attached to a goody bag if necessary. If the lift bag becomes too buoyant and you are unable to control it, you can always release it.

!! WARNING !!

Do not use your drysuit as a lift bag. If you do, and you lose your grip on the object, you may become excessively buoyant. This may result in a rapid ascent.

ASCENDING IN YOUR DRYSUIT

At the end of your dive, take a moment to check your drysuit exhaust valve before beginning your ascent. Make sure that the exhaust valve is completely open by turning it counterclockwise until it stops.

Your ascent must be slow and controlled. As you start toward the surface, you will become positively buoyant because the air in your drysuit and/or BCD is expanding. Vent air from the drysuit exhaust valve and/or BCD as needed to maintain neutral buoyancy. You should be able to stop your ascent at any time by simply exhaling.

!! WARNING !!

Your first few drysuit ascents should be made next to a weighted line which can be used to regain control of the ascent if necessary.

Monitor your rate of ascent using your dive computer or timer/depth gauge. Stay within the ascent rate limits of your dive computer. If you are not using a computer, maintain the rate recommended by the tables you are using.

! CAUTION !

Stay within the maximum rate of accent specified by a specific decompression computer and/or tables being used.

Control your ascent by raising or lowering your left arm.

If you are ascending too fast, raise your left arm higher to allow the drysuit to vent more air. If raising you left arm does not slow your ascent adequately, push in on the exhaust valve to activate the manual override.

If you are negatively buoyant and have difficulty ascending, lower your left arm and add a burst of air to your drysuit to add buoyancy. Once you begin to ascend, be prepared to vent air through the exhaust valve.

Be prepared to stop your ascent at any time. Control your rate of ascent so that you are able to make the recommended safety stop at 10' - 15' (3-5 m.) Once you have reached the surface, inflate your BCD before swimming back to the beach or boat.

SURFACE SWIMMING

Inflating your BCD will allow you to swim comfortably on the surface without inflating your drysuit. Inflation of your drysuit while on the surface will place pressure on your neck. Many divers find such neck pressure uncomfortable.

Some divers like to close the exhaust valve all the way while surface swimming to ensure positive buoyancy and prevent water from leaking into the drysuit through the valve. Although it is acceptable to close the valve completely while on the surface, be sure to adjust the exhaust valve to the open position before submerging again.

EMERGENCY PROCEDURE SKILLS

!! WARNING !!

The following emergency procedures should be practiced in a controlled environment (such as a pool) under the supervision of an instructor certified by a nationally recognized agency before the drysuit is used in open water. This manual is NOT a substitute for hands-on training and development of practical skills. KNOWING the procedures is NOT enough. You must be able to PERFORM the emergency procedure skills. Like any skill, it is acquired by DOING, not simply by reading.

Master the following emergency skills (except as noted) before using the drysuit in open water:

INVERTED POSITION (AIR IN FEET)

If you are positively buoyant and turn upside down, you will find yourself drifting toward the surface feet first. It is very important to regain control immediately, because air cannot be vented from the drysuit if you are upside down.

If you find yourself upside down when you are close to the bottom:

- Swim hard toward the bottom
- Push off the bottom with your hands
- Roll to an upright position
- Immediately vent your drysuit through the exhaust valve

If you find yourself upside down in mid-water:

- Kick hard toward the bottom
- Bend forward at the waist
- Roll to an upright position
- Immediately vent your drysuit through the exhaust valve

If you are unable to recover to an upright position and are experiencing an uncontrolled ascent, flare your body to reduce the speed of your ascent.

Spread your arms and legs away from your body, get your fins parallel to the surface of the water, and try to slow your ascent by creating drag. Be sure to continue exhaling as you ascend.

!! WARNING !!

Flaring is a final effort to be used in an emergency only. Do not practice this skill unless you are under the direct supervision of a qualified instructor certified by a nationally recognized instructional organization. Rapid ascent is dangerous and may cause air embolism or decompression sickness, either of which can result in serious injury or death.

INFLATOR VALVE STUCK OPEN

If the inflator valve becomes stuck in the open position, immediately disconnect the low-pressure inflator hose from your drysuit inflator valve and vent any excess air through the drysuit exhaust valve. The most effective way of disconnecting the hose is to push the hose forward into the inlet valve while pulling back on the quick disconnect flange. Practice this skill with gloves on until you are able to disconnect the hose quickly and easily.

If you forget which direction to turn the exhaust valve to open it (counterclockwise), you can manually vent through the automatic valve. Lift your left elbow until it is the highest point of your body and push down on the valve. Air will be exhausted from the drysuit.

If you are unable to vent enough air through the exhaust valve, open the neck seal or wrist seal(s) to allow air to escape. Water will enter the drysuit.

If sufficient air still cannot be vented and you are experiencing an uncontrolled ascent, flare your body to reduce the speed of the ascent. Spread your arms and legs away from your body, get your fins parallel to the surface of the water, and try to slow your ascent by creating drag. Be sure to continue exhaling as you ascend.

! CAUTION !

If you continue to push in on the exhaust valve after all of the air is exhausted from the drysuit, water may enter the drysuit.

INFLATOR VALVE STUCK CLOSED

If the inflator valve is stuck in the closed position, stop your descent and terminate the dive immediately. Use the buoyancy control device as needed to control buoyancy. Return to the surface while venting the expanding air in the drysuit.

LEAKING EXHAUST VALVE

If the exhaust valve is stuck open, the drysuit will not hold air properly. It is also likely that water will enter the drysuit through the open valve.

If the exhaust valve is stuck open, terminate your dive immediately. Use the buoyancy control device as needed to control buoyancy and return to the surface.

EXHAUST VALVE STUCK CLOSED

If the exhaust valve is stuck in the closed position, air cannot be properly vented from the drysuit. This may result in an uncontrolled ascent.

If the exhaust valve is stuck in the closed position, either open the neck seal or a wrist seal to release air. When this emergency procedure is followed, some water will enter the drysuit.

If sufficient air still cannot be vented and you are experiencing an uncontrolled ascent, flare your body to reduce the speed of the ascent. Spread your arms and legs away from your body, get your fins parallel to the surface of the water, and try to slow your ascent by creating drag. Be sure to continue exhaling as you ascend.

SLOW AIR LEAK IN INFLATOR VALVE

If you find a slow leak in the inflator valve, disconnect the low-pressure inflator hose and terminate the dive immediately. Ascend while venting the expanding air in the drysuit through the exhaust valve as normal.

LOSS/INTERRUPTION OF AIR SUPPLY

If your air supply is interrupted or lost, terminate your dive immediately. Control your rate of ascent by venting air from the drysuit through the exhaust valve.

FLOODED DRYSUIT

In the event of a zipper failure or other catastrophic drysuit failure, your drysuit may flood. If your drysuit is flooded:

- Inflate your BCD to establish positive buoyancy
- Position the leak as low as possible to minimize air loss
- Perform a controlled ascent
- Terminate the dive

! CAUTION !

The above emergency skills may be practiced in a heated pool under the direct supervision of a qualified instructor certified by a nationally recognized instructional organization.
Adjust divewear insulation to avoid overheating.

If you are unable to establish positive buoyancy by inflating the BCD, only then should you consider dropping your weight. Even a small amount of cold water introduced inside the drysuit may "feel" like a catastrophic failure. It is imperative that you make every effort to ascend using your BCD before ditching your weight. If the drysuit "feels" flooded, but in fact is not flooded, the inflation of the BCD plus the ditching of the weight could result in EXTREME POSITIVE BUOYANCY. Depending on the volume of air inside the BCD and the amount of weight carried, some drysuit divers could be as much as ONE HUNDRED POUNDS positively buoyant. Such buoyancy would be impossible to control and would result in a very rapid and uncontrolled ascent.

!!! DANGER !!!

Ditching your weight belt after inflating your BCD can result in the imminent danger of serious bodily injury or death. Do not ditch your weight belt unless anything other than an immediate, rapid, and uncontrolled ascent to the surface will result in imminent death.

DROPPED/LOST WEIGHT BELT

! CAUTION !

The emergency procedures for dropped/lost weight belt should be read and understood. Do not practice these skills except in a controlled environment under the direct supervision of a qualified instructor certified by a nationally recognized instructional organization.

If you drop or lose your weight belt attempt to recover the weights. If you are unable to recover the weights:

- Grab hold of anything you can (ascent line, anchor line, rock) and vent your drysuit
- If you are still unable to control your ascent, assume the flare position
- Remember to continue to exhale as you ascend

ADJUSTING YOUR DUI DRYSUIT BETWEEN DIVES

In warm weather you can unzip your drysuit while you're out of the water between dives. You can relieve the pressure of the neck seal by using the DUI necklace ring. The ring holds the neck seal away from the neck.

! CAUTION !

Be sure to remove the necklace before going in the water.

If you are still too warm, either remove the upper portion of the drysuit or remove the drysuit entirely.

TAKING OFF YOUR DUI DRYSUIT

- Remove all other SCUBA equipment, including the hood, before removing your drysuit.
- If the outside of your drysuit got dirty during the dive, wash off the dirt before removing the drysuit. Pay particular attention to the waterproof zipper. Unzip your drysuit completely. If you have a zipper guard, make sure that both zippers are completely open.

! CAUTION !

If the zippers are not fully open, the zippers may be damaged.

QUICKZIP™ AND ORIGINAL SELF-DONNING DRYSUITS

FIG-9 Removing Drysuit

- Undo the crotch strap that holds the torso of the drysuit in place. Pull the drysuit up so that the excess torso length of the drysuit rides as high on your chest as possible.

- **Removing A Latex Or Neoprene Neck Seal**
  Review Taking the Drysuit Seals Off / Neck Seals in this manual
- **Removing Latex, Neoprene Cone Or Neoprene Fold Under Wrist Seals**
  Review Taking the Drysuit Seals Off / Wrist Seals in this manual
- Grasp the sleeve material between your fingers and thumb and pull your arm out of the seal but not out of the sleeve. Slide the drysuit off the right shoulder.
- Put your right arm around your back and, with your left hand, grasp the material of the right sleeve. Pull the sleeve off your right shoulder and arm. Remove you left wrist seal in the same way and pull the left arm free of the sleeve.

SHOULDER-ENTRY DRYSUITS

- Review Taking the Drysuit Seals Off / Neck Seals in this manual
- Remove one arm pulling it back through the zipper opening. Then repeat the process on the second arm. Do not pull the sleeves inside out when removing the arms from the drysuit. Inverting the arms while removing the drysuit can strain and damage the zipper ends.

REMOVING THE DRYSUIT FROM YOUR BODY

- Remove the RockBoots™ or, in the case of Turbo Sole Boot option, undo the ankle straps
- Slide the suspenders off your shoulders (if your drysuit model has them) and unfold the drysuit down to your waist. Sit down to remove your legs.

TROUBLESHOOTING

Most common areas to check if drysuit leaks are experienced:

- **Waterproof zipper not fully closed** Check that zipper is completely closed before removing the drysuit
- **Seals not properly seated around the wrist and/or neck** Sealing surface not flush against the skin (laying flat on the skin) or there is something between the sealing surfaces such as a divewear thumb loop
- **Dirt or foreign object in sealing surface of exhaust valve** Flush exhaust valve with freshwater.
- **Puncture or tear in drysuit material or seal** Visual examination of area where leak was experienced. If puncture or tear is not visible the drysuit should be leak tested.

CARE AND MAINTENANCE OF YOUR DUI DRYSUIT

Proper maintenance of your drysuit will greatly extend its useful life.

When finished diving for the day, rinse the outside of your drysuit thoroughly with fresh water. Pay particular attention to the zipper and valves.

Flush the exhaust valve and the inlet valve with running water. Blow the valves dry with compressed air after flushing.

!! WARNING !!

Drysuit valves must be cleaned after each use in the same way that your regulator must be cleaned. Inlet valves may stick due to a build-up of salt in the valve. Exhaust valves may stick due to lint, dirt, or hair in the valve.

If the inside of your drysuit became wet, rinse the inside of the drysuit also.

Wash latex seals with a mild soap and water solution after every twelve dives or before storage of the drysuit. Accumulated body oils will shorten the useful life of latex seals.

After rinsing the drysuit, open the zipper, and hang the drysuit by the socks/boots over a line or drying rack in a shady spot to dry.

! CAUTION !

Do not hang your drysuit in the sun.

When the drysuit is completely dry outside, feel the inside of the drysuit (all the way down to the socks/boots.) If there is any moisture inside the drysuit, turn the drysuit inside out and allow the inside to dry as well.

When your drysuit is completely dry, apply talcum powder to the latex seals. Close the zipper and lubricate it with DUI ZIPWAX or ZIPPEREASE. Use a toothbrush to clean the drysuit zipper with soap and water periodically to remove any dirt or debris form zipper before lubricating.

Should you have any questions concerning the care and maintenance of your DUI drysuit, please contact DUI's Repair Services Department at 619.236.1203 or 800.325.8439 x315-Monday through Friday 7:30am-4:00pm Pacific Time.

DRYSUIT STORAGE

Proper storage will extend the life of your drysuit. Store your drysuit in a cool dry place on a wide hanger and the zipper open. The storage area should be free of ozone generators, such as electric or gas appliances. If you must store the drysuit in areas with ozone generators it is best to fold the drysuit loosely with the zipper open and place it inside a sealed plastic bag.

Folding Your DUI Drysuit in Drysuit Bag For Transporting

FIG-11 HOW TO FOLD YOUR DRYSUIT

A. Lay the dry suit with the zipper open face down on a clean, flat surface with the arms out to the sides. Pull the shoulders up so that the zip seal neck is laying flat.

B. Fold the legs up so that the toes of the drysuit go just beyond the shoulder line.

C. Fold the bottom portion of the drysuit toward the upper portion, making approximately a 12" (300 mm) folded section.

D. Fold once more so that the bottom of the last fold now rest at about the shoulder line.

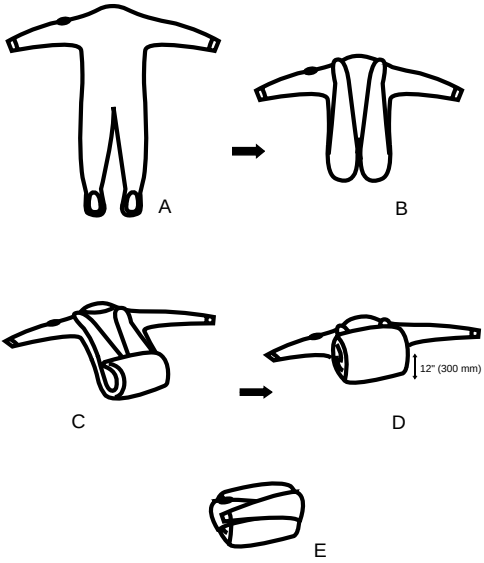


FIG - 10

E. Tuck the wrist seals into the sleeves and fold sleeves across the entire package. Slide the folded drysuit into the DUI drysuit bag.

F. Larger drysuits may require folding the suit in half to fit into drysuit bag for transporting.

Hanging Drysuit For Storage

For storage between dives the drysuit is best hung in a cool, dry space away from ozone generators, i.e. electric motors, gas pilot lights and sun light. The suit should be hung up on a quality drysuit or wetsuit hanger.

- The zipper should be left in the open position.
- Any hard accessory dry glove ring installed on the wrist seals should be removed. This does not include ZipSeals™ or ZipGloves™.
- Place suit on hanger taking care not to damage the neck seal with the hanger hook. If the suit is equipped with a neck ZipSeal™, hang the suit so the back of the neck ring is up against the hanger's hook. Insure the neck ZipSeal™ ring is hanging flat and does not have sharp bends.

Long Term Storage (Longer than two months)

- Hang the suit up as listed above and, if the suit is equipped with ZipSeals™, remove the seals and store them in plastic bag or plastic container taking care to keep the rings on the ZipSeals™ in their normal shapes; wrist round and neck flat. This will reduce the effects of ozone aging of the seals.
- If hanging is not an option, follow the instructions for folding the suit. For long term storage, make sure the suit is completely dry and fold suit very loosely paying particular attention to the ZipRings™ to insure they are kept in their normal shapes; wrist round and neck flat. After the suit is folded, place in a large plastic bag to reduce the effects of ozone aging of the seals, and store in a cool, dry space.

Warranty

Diving Unlimited International, Inc. Limited Warranty

Diving Unlimited International, Inc. (DUI) warrants that your DUI drysuit (except for neck seals, wrist seals, zipper and valves) will be free from defects in materials and workmanship for a period of seven (7) years from the date of original retail purchase.

DUI warrants that the zipper, the exhaust valve, and the inlet valve will be free from defects in materials and workmanship for a period of one year from the date of original retail purchase.

DUI warrants that the neck and wrist seals will be free from defects in material and workmanship for a period of ninety (90) days from the date of original retail purchase.

Any product determined by DUI to be defective in materials or workmanship in accordance with the above warranties will be repaired or replaced at the option of DUI, free of charge, when received at the factory freight prepaid, together with proof of purchase.

This warranty is expressly in lieu of all other warranties. Any implied warranties of merchantability or fitness for a particular purpose are limited to the same duration as this express warranty.

This warranty does not cover, and DUI shall not be liable for incidental or consequential damages. Some states do not allow the exclusion or limitation of implied warranties, incidental or consequential damages, so the above limitations and exclusions may not apply to you.

This warranty does not cover any damage resulting from misuse, abuse, neglect, alteration, failure to perform maintenance as instructed, damage caused by contaminants, or unauthorized repair or service.

This warranty does not cover any representation or warranty made by Dealers beyond the provisions of this warranty.

This warranty does not cover costs incurred for normal repair, inspection and preventive maintenance.

This warranty is a consumer warranty extended only to the original retail purchaser, and does not apply to drysuits used for commercial purposes.

You must establish proof of purchase to obtain warranty service or replacement. Proof of purchase may be established by completing the Warranty Registration Card and mailing to DUI.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Returning Your DUI Drysuit For Service, Contact:

Diving Unlimited International, Inc.
1148 Delevan Drive
San Diego, CA 92102-2499 USA
Tel: 800-325-8439 or 619-236-1203
Fax: 619-237-0378
CustomerService@DUI-Online.com
www.DUI-Online.com

DUI divers are a breed apart. Join the pack!

As a DOG, you have access to DOGs only newsletters, special DOG events and rallies, special trips only DOGs can take, demos and more. All DUI drysuit and BCS owners can register as a DOG. And when you register, your serial numbers are on file should your equipment ever get lost or stolen.

Register today and receive your FREE DOG tag for your gear bag. We've also got some great clothing to keep DOGs well groomed out of the water, too!

For the most current information and to register, visit: www.DUI-Online.com

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